Claims

What is claimed is:

1. A tool for surgically clamping a split sternum together comprising:

an elongated nosepiece extending from an end of the tool, a distal end of the nosepiece having an aperture, generally transverse to an elongate direction of the nosepiece, the aperture receiving a ferrule and allowing passage of a cable through the ferrule disposed in the aperture, the nosepiece further having a passageway extending from a proximal end of the nosepiece in the elongate direction to an intersection with the aperture; the proximal end of the nosepiece being retained in a body of the tool;

a plunger, comprising an indenter, a spring, and a pushrod member having a recess for receiving the spring and the a proximal portion of the indenter, the recess allowing reciprocating motion of the indenter therein, the plunger mounted in the passageway for reciprocating motion therein, so that in a first position, a distal portion of the indenter extends into the aperture sufficiently to hold a ferrule disposed therein;

a collar, attached to the indenter and slidingly disposed around the nosepiece, for allowing manual movement of the indenter to a second position away from the aperture to allow insertion of a ferrule in the aperture; and

an apparatus for advancing the plunger towards the aperture to compress a ferrule, disposed in the aperture, around a cable disposed through the ferrule.

2. The tool of claim 1, further comprising a wheel mounted for rotation about an axis of the body substantially perpendicular to an elongate axis of the body for retaining cable wrapped around the wheel and allowing tension to be applied to the cable by rotation thereof.

3. The tool of claim 1, wherein the pushrod member and the nose piece comprise alignable pairs of opposed longitudinal slots allowing longitudinal

movement of a pin therethrough, the pin extending radially through the collar, the slots, and the indenter.

4. The tool of claim 1, wherein the apparatus for advancing the plunger comprises:

a toggle joint having a first arm for engaging the proximal end of the plunger; and

a lever for exerting a force on a second arm of the toggle joint to urge the first arm against the plunger.

5. The tool of claim 4, wherein the lever comprises a pivotable handle of a pliers-type hand tool.

6. A method of using the tool of claim 1, comprising:

providing a cable comprising a cable end fitting attached to a first end of the cable, the cable end fitting further comprising a cable passageway for receiving a second end of the cable therethrough;

forming a cable loop around the body parts by passing the second end of the cable around the body parts and through the cable end fitting;

disposing a ferrule in the aperture of the tool;

threading the second end of the cable through the ferrule;

positioning the ferrule against the cable end fitting;

tensioning the cable;

crimping the ferrule to the cable; and

cutting the cable flush with the ferrule.

7. A surgical tool for tensioning a cable positioned around a split sternum, for crimping a ferrule around the cable, and for terminating the cable, the tool including a tensioning actuator for gripping and tensioning the cable to a predetermined tension, and a crimping actuator for crimping the ferrule onto the cable when the predetermined tension has been reached, the crimping actuator

being operative to sever a free end of the cable concurrently with crimping of the ferrule, the crimping actuator including an indenter to retain the ferrule within the crimping actuator during tensioning of the cable and crimping the ferrule.

8. A method of surgically clamping a split sternum together comprising:

looping a cable comprising a cable end fitting attached to a first end of the cable around the body parts;

passing a second end of the cable through the cable end fitting;

disposing a ferrule in a ferrule receiving aperture of a clamping tool;

threading the second end of the cable through the ferrule disposed in the aperture so that the ferrule abuts the cable end fitting;

wrapping the second end of the cable around a tensioning wheel of the clamping tool to apply a predetermined tension to the cable;

forcing an indenter of the clamping tool into the aperture against the ferrule to crimp the ferrule around the cable; and

forcing the ferrule past a shearing surface of the tool adjacent to an end of the ferrule away from the cable end fitting to cut the cable flush with the ferrule.

9. The method of claim 8, further comprising displacing the indenter from extending into the aperture to allow disposing the ferrule therein.

10. The method of claim 8, further comprising biasing the indenter against the ferrule after disposing the ferrule in the aperture.

11. The method of claim 8, further comprising passing the second end of the cable around the body parts more than one time before passing the second end through the cable end fitting.